# Information Systems

Prof. Gianni Zanrei

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course is designed to provide the basic concepts related to Information Systems, with reference to relational databases. The data and information management systems will be analysed, the role in the management and organization of the company together with a technical knowledge of the technologies and applications supporting information management in the specific context of the plan called "Impresa 4.0". The study of Information Systems is not limited to the technologies knowledge, but must be integrated with elements of organization, process and data management. Laboratory hours are foreseen, during which a specific competence will be given to the use of spreadsheets.

At the end of the course, the student will be able to:

- Introduce the basic principles of Information Systems

- Present the fundamentals of the integrated management applications and the principles on which the Integrated Factory is founded together with the knowledge of the "Impresa 4.0" Plan and the related technologies

- Understand the different aspects concerning the introduction and use of ICT in an organization

- Read and design a relational database

- Use spreadsheet features for data processing and analysis

***Course contents***

The course content is organized as it follows:

* The data and information resources
* The Information System: components, organization and processes
* Location and layers of Information System
* Integrated Management Systems and Factory Integrated Systems
* Concepts related to the “Impresa 4.0” plan and the integrated factory
* DBMS and Relational Database design
* Data analysis using Spreadsheet

***READING LIST***

* Giulio Destri, *“Sistemi Informativi”*. Ed: Franco Angeli, 1ma edizione.
* P. Atzeni, S. Ceri, P. Fraternali, S. Paraboschi, R. Torlone, *“Basi di Dati”*. Ed: McGraw Hill Educational

In the detailed program distributed via Blackboard reference is made to the relevant chapters and paragraphs.

In addition will also be the materials provided by the teacher during the course and uploaded in Blackboard, from time to time.

***Teaching method***

Lectures and class exercises in the computers room.

***ASSESSMENT METHOD AND CRITERIA***

The exam is aiming to assess skills and learning of the topics covered during the course.

The exam is written based on BlackBoard.

The exam is based on 7 questions by:

* 1 open question (giving 4 points)
* 3 marked questions (giving 8 points)
* DataBase logical design exercise (giving 8 points)
* Spreadsheet practical exercise (giving 10 points)

***NOTES AND PREREQUISITES***

The course does not require prerequisites related to the contents.

To fill the IT gap, a special course is prepared at the beginning of the first year.

***NOTES***

Information on office hours available on the teacher's personal page at http://docenti.unicatt.it/